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EXAMINER

MCCORMICK, GABRIELLE A

ART UNIT

PAPER NUMBER

3629

NOTIFICATION DATE

DELIVERY MODE

12/23/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dcptopatent@hhlaw.com

Office Action Summary	Application No. 10/686,608	Applicant(s) CASEY ET AL.	
	Examiner Gabrielle McCormick	Art Unit 3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 5, 8-14, 16, 19-23 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-5, 8-14, 16, 19-23 and 25-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
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| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. This action is in reply to the Request for Continued Examination filed on November 12, 2008.
2. Claims 1, 4-5, 8-13 and 23 have been amended.
3. Claim 18 has been canceled.
4. Claims 1, 4-5, 8-14, 16, 19-23 and 25-28 are currently pending and have been examined.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, 4-5, 8-14, 16, 19-23 and 25-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
7. Applicant has amended the independent claims 1, 13 and 23 to incorporate the following limitation: ***at least one computer-readable medium encoding instructions for developing/implementing a border management solution/application architecture, wherein said instructions include...*** The claims then list various “business processes”, “applications”, “channels”, “interfaces”, “quadrants” and “elements”. However, the specification does not provide support for any “computer-readable medium encoding instructions”, therefore cannot provide support for the various limitations regarding the instructions.
8. The specification discloses the following:

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9. [00047] The business processes within each capability provide a set of logically related activities combined to produce a business outcome.
10. [00066] FIG. 4 shows the technology architecture 40 according to the present invention...Business logic 430 between the multiple access channels 410 and the data resources 420 manages and coordinates the transfer of data.
11. [00068] ...business logic 430 may include servers 4302, border management components 4304, other government components 4306, and external components 4308.
12. The Examiner asserts that there is no disclosure for computer-readable medium encoding instructions. The specification's disclosure of "business logic 430" does not provide the support for encoding instructions that support the associated claimed limitations.
13. Claims 1, 4-5, 8-14, 16, 19-23 and 25-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
14. Claim 1 contains the amended limitation of "the collect, analyze, and communicate intelligence business process includes a risk assessment element that applies neural networks and rules-based algorithms to transform the information into the intelligence". Claims 13 and 23 recite "the set of intelligence applications (or border enforcement intelligence element) includes an information synthesis application and a risk scoring and analytics application that applies neural networks and rules-based algorithms".
15. The specification does not disclose how the neural networks and rules-based algorithms are applied so that information is either transformed into intelligence or how risk is scored.
16. P[00084] discloses that data warehousing solutions allow enforcement officials to synthesize information,...develop risk scores and form intelligences. Data mining includes such applications as rules-based analysis, neural networks... P[000148] states that "Risk assessment applies neural networks and rules-based algorithms to data collected from the border management data store 1450" and generates knowledge and intelligence.

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17. These recitations do not provide enablement for how one of ordinary skill in the art would make or use the invention. Due to the plethora of categories of data that could be potentially collected and analyzed, and the multitude of possible transformations of data using tools such as algorithms and neural networks, it would require **undue experimentation** in order to make or use the invention. Additionally, the specification does not provide any working examples, nor does it recite the type of data collected, the algorithms or neural networks used, or the inputs for scoring risk. One of ordinary skill in the art would not be able to use the invention to determine risk assessment or intelligence.
18. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
19. Claims 1, 4-5, 8-14, 16, 19-23 and 25-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
20. Claims 1, 13 and 23 are system claims that recite ***at least one computer-readable medium encoding instructions for developing/implementing a border management solution/application architecture, wherein said instructions include...*** The claims then list various “business processes”, “applications”, “channels”, “interfaces”, “quadrants” and “elements”.
21. Though the Examiner understands that Applicant may be his/her own lexicographer the written description must clearly redefine the claim terms and set forth the uncommon definitions so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “business processes” in claim 1 and “capability quadrant” in claim 23 are used by the claims to presumably mean software code. The terms are indefinite because the specification does not clearly redefine them.
22. Claims 13 and 23 recite that the instructions include channels, and additionally elements and external data sources, in claim 23. As understood by the specification and particularly, figure 4,

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channels are hardware items such as a computer, a laptop, etc. Elements and data sources are also presumably hardware items, rather than software code. Therefore, it is unclear how software instructions can include these items and the claims are indefinite because the scope cannot be determined.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1, 4-5 and 8-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wade ("Customs aims to keep their pledge; [Final Edition]". San Antonio Express-News. San Antonio, Tex.: Mar. 30, 1997, pg.3.K) in view of Wong (US Pat. No. 6,115,690) in view of Coalition for Secure & Trade-Efficient Borders ("Rethinking our Borders: A Plan for Action". Published Dec. 3, 2001 at www.cme-mec.ca/national/template_na.asp?p=104, hereafter referred to as "Coalition") in view of Bian (US Pub. No. 2003/0115133).
7. **Claim 1:** Wade discloses a traveler from an overseas flight entering Kennedy International Airport (located in *a country of people and commerce* and providing exit from a country) being directed to an inspector at a counter where bags were opened for inspection. (pg. 1; para. 4-5: *citizen-facing capabilities providing interaction between people or commerce entering or exiting a country and border enforcement personnel*); a government data base that lists names of offenders as a means of selecting passengers for inspection (para.9) and scanned passport data being compared with the Interagency Border Inspection System upon exit from a country (pg. 2; para. 2). This provides the *supporting capabilities encompassing the one or more citizen-facing capabilities for assisting the one or more citizen-facing capabilities in working together*). Further,

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the Customs Service has a strategy of getting most passengers through its system (*infrastructure*) and out the airport door within five minutes. (para. 1: *infrastructure capabilities for coordinating strategy among and infrastructure support across the one or more citizen-facing capabilities and one or more supporting capabilities.*)

8. Wade further discloses an application for an Inspass that allows travelers to pass through Immigration quickly (pg. 2; para. 9 and 10) and a declarations card for goods purchased overseas. (pg. 1; para. 5) (Processes immigration and trade). The Customs clearing process, already a means of facilitating the movement of people and trade is further enhanced with the Inspass system.
9. Wade discloses enforcement in the form of paying a duty on declared items (pg. 1; para. 9) and the Immigration and Naturalization Service receiving information about passengers on a flight (pg. 1; para. 11: The INS is inherently tasked with enforcement of immigration laws.).
10. Wade discloses that people “who arouse the interest of the Customs inspectors” are selected for luggage inspection; (pg. 1; para.9: *detect and enforce border laws and policies capability for reviewing, analyzing, and detecting suspect individuals or shipments and conduct enforcement investigations* (i.e., luggage inspections) *capability for conducting investigations of individuals or trade*) and the Interagency Border Inspection System (IBIS) that allows for comparison of passports with law enforcement data. (pg. 2; para. 2-3). The matching of names in IBIS provides the *collect, analyze, and communicate intelligence capability for collecting information about individual and transforming said information into intelligence to detect and communicate potential individual or trade risks*. Wade states that after the comparison of the collected data with the IBIS database, passengers that do not match are waved through, therefore, it is inherent that passenger that do match are not waved through and are obviously detained pending further investigation. Therefore, the information from the scanned passports is transformed into intelligence as a result of the comparison with the IBIS database such that matched passengers are subject to increased scrutiny over unmatched passengers. The comparison allows for the detection and communication of potential risks.

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11. Wade does not disclose a *computer-based system*.
12. Wong, however, discloses “software that enables end-to-end, business-to-business Web commerce...that automates...the various aspects of running a successful and profitable business.” (C4; L7-12) “A Web-enabled, client/server relational database management system” includes “code modules pertaining to each of the different domains”. (C12; L55-64: i.e., processor (inherent in the server), database, and encoding instructions).
13. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included a computer-based system, as disclosed by Wong, in the system of Wade for the motivation of integrating processes (including services) that result in a streamlined operation with data available in real-time. (Wong; C4; L18-24). Wade has disclosed IBIS and APIS (Advanced Passenger Information System – pg. 2; para. 4). By combining Wong's business process integration system with the various aspects of Customs and immigration processes performed by the Customs Service and the INS, including the database checking of APIS and IBIS, the process of providing the clearance through Customs and Immigration would be streamlined, more efficient and therefore aid in reaching the Customs Service pledge of speeding passengers through its system. (Wade; pg. 1; para. 1).
14. Wade does not disclose a *risk assessment element that applies neural networks and rules-based algorithms to transform the information into intelligence*.
15. Coalition, however, discloses risk assessment in order to identify and allow greater focus on high-risk movements. (pg. 7; para. 11-12), increased integration between Canada and the US where data, intelligence and information are shared (pg. 11; para. 12-13; pg. 16; para. 13 and pg. 22; para. 11). Thus, Coalition discloses that information is collected and transformed into intelligence that is shared between the US and Canada in order to focus attention on high risk movements (i.e., risk assessment is performed).
16. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included risk assessment, as disclosed by Coalition, in the system of Wade for the

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motivation of permitting “governments to focus their attention more effectively on illegal and irregular movements of goods and people.” (Coalition; pg. 7; para. 12).

17. Bian discloses using a neural network and algorithm to detect patterns of data that are characteristic of the outcome one is trying to predict. (P[0029]). A risk score is calculated.
18. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included using neural networks and rules-based algorithms, as disclosed by Bian, in the system of Coalition for the motivation of using a screening tool, such as a score, to assist in prioritizing investigation needs. (Bian; P[0038]). Coalition is directed toward identifying and communicating high risks in order to effectively use border resources. It is obvious to use data analysis tools, such as neural networks, algorithms and scoring, to prioritize the need to further investigate a movement.
19. **Claim 4:** Wade discloses manual processing of individual and trade requests (passengers use declaration cards to clear Customs; luggage is inspected by Customs inspectors- pg. 1; para. 5). Individuals are also automatically processed during their inbound flights when their passports are checked through IBIS and those passengers who are not matched are waved through Immigration and Customs (pg. 2; para. 2-3). Wade does not disclose automated processing of trade requests.
20. Coalition, however, discloses pre-clearance programs for shipments, such as the National Customs Automation Program. (pg. 8; para. 5).
21. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included automated trade clearance, such as a pre-clearance program, as disclosed by Coalition, in the system of Wade for the motivation of providing an option for low-risk companies that permits “governments to focus their attention more effectively on illegal and irregular movements of goods and people.” (Coalition; pg. 7; para. 12).
22. **Claim 5:** Wade discloses entry processing (pg. 1; para. 5), exit processing (pg. 2; para. 2) and import processing (pg. 1; para. 9: paying duty inherently includes importing). Wade does not disclose exporting.

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23. Coalition, however, discloses exporting (pg. 25; para. 1).
24. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included exporting, as disclosed by Coalition, in the system of Wade for the motivation of detecting illegal smuggling activities. (Coalition; pg. 6; para. 5).
25. **Claims 8 and 9:** Wade discloses reviewing traveler information using the Interagency Border Inspection System (IBIS) that allows for comparison of passports with law enforcement data in order to determine admission to the US. (pg. 2; para. 2-3). This allows for the identification and locating of people with immigration violations. Wade does not disclose real-time access, nor does Wade disclose real-time access to information for trade clearance or identifying illegal or suspicious trade.
26. Coalition, however, discloses “Smart transportation networks” that allow in-transit electronic reporting (pg. 23; bullet 1) that will allow “government officials to pinpoint which people or goods they need to inspect when they arrive”. (pg. 22; para. 11). Electronic reporting inherently comprises real-time access.
27. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included smart transportation networks, as disclosed by Coalition, in the system of Wade for the motivation of permitting “governments to focus their attention more effectively on illegal and irregular movements of goods and people.” (Coalition; pg. 7; para. 12).
28. **Claim 10:** Wade discloses gathering information from individuals (pg. 2; para. 9: some travelers are questioned by an Immigration officer), but does not disclose gathering information about illegal trade or communicating intelligence about either illegal trade or individuals who pose a threat.
29. Coalition, however, discloses using “technology to report and share intelligence and data from shippers to both the Canadian and American governments represents one of the most effective approaches to improving cross-border traffic flows. It will allow government official to pinpoint which people or goods they need to inspect when they arrive, allowing the others to move more freely.” (pg. 22; para. 11).

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30. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included communicating intelligence, as disclosed by Coalition, in the system of Wade for the motivation of permitting “governments to focus their attention more effectively on illegal and irregular movements of goods and people.” (Coalition; pg. 7; para. 12) and ultimately increasing national safety.
31. **Claim 11:** Wade discloses passenger service representatives (pg. 2; para. 6) who act as troubleshooters and thus provide support to the Customs inspectors (the *citizen-facing capabilities*). A kiosk acts as an interface to the travelers (i.e., *clients*) where those carrying Inpass cards are able to clear Immigration. (pg. 2; para. 9). The Customs Service is the coordinator of activities between the Customs inspectors. (pg. 1; para. 1).
32. **Claim 12:** Wade discloses the Customs Service strategy of speeding passengers through its system (pg.1; para. 1: this defines the strategy across the Customs Service in airports, where borders are managed). Wade does not disclose providing shared services.
33. Wong, however, discloses that business processes include purchasing (i.e., procurement), financial performance (i.e., finance and budgets), personnel (i.e., human resources) and engineering. (C5; L56-63). It is obvious that information technology in Wong’s integrated web-based system would fall under engineering.
34. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included shared service support, as disclosed by Wong in the system disclosed by Wade, for the motivation of providing a method of providing the support related processes that are a part of most businesses. Wade describes IT structures such as database matching, Custom inspectors (personnel) and items used by customers of the Customs Service such as declaration cards (pg. 1; para. 5) and kiosks (pg. 2; para. 9). These items would require procurement, financing and budgetary considerations, therefore, would benefit from business process integration as disclosed by Wong.

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35. **Claims 13-14, 16, 19-24 and 24-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Coalition for Secure & Trade-Efficient Borders ("Rethinking our Borders: A Plan for Action". Published Dec. 3, 2001 at www.cme-mec.ca/national/template_na.asp?p=104, hereafter referred to as "Coalition") in view of Wong (US Pat. No. 6,115,690) in view of Bian (US Pub. No. 2003/0115133).
36. **Claim 13:** Coalition discloses border management including *a set of core applications for standard border management functions*, (pg. 3; bullet 2) *and case management* (pg. 15; para. 5: centralized applications processing) *and intelligence applications* (pg. 22; para. 11: using technology to report and share intelligence); *a set of customer channels for providing individual access points for the users of the border management application architecture* (pg. 9; para. 9: electronic reporting for companies (i.e., customers)); *a customer channel interface interconnecting the set of customer channels and the set of core applications* (pg. 7; para. 5 and 7: the Internet interconnects customer channels (i.e., web sites) and applications when the customer is reporting information to the government); *one or more management access channels for providing access points and tools for the sharing and access of border management data across border management capabilities* (pg. 7; para. 5: the Internet provides access points and para. 10: Canada and US invest in joint systems to create integrated solutions); *one or more management access interfaces interconnecting the one or more management access channels with the set of core applications* (pg. 7; para. 5 and 7: the Internet interconnects customer channels and applications when the customer is reporting information to the government) and centralized applications processing (pg. 15; para. 5: forms submission and *case management*). By disclosing the Internet and electronic reporting, Coalition inherently discloses computer interfaces such as keyboards and access channels such as web sites.
37. Coalition further discloses centralizing visa applications processing in order to improve risk management. (pg. 15; para. 5) such that an improved, effective immigration system will facilitate the entry of low-risk travelers and concentrate security efforts on unknowns and high risks. (pg. 15; para. 1). It is obvious that in order to achieve the goal of concentrating security resources on

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high risks, that data is transformed into intelligence. Coalition further cites passport security where information is shared to ensure that passports are not issued to people who are not entitled to hold one (pg. 16; para. 4), that anybody making a false declaration is prosecuted (pg. 16; para. 10: the declaration data is transform into intel in order to prosecute) and the need for information sharing using a database that contains information from all of Canada's immigration, law enforcement, security agencies, international policing agencies, and records of entries and exits in order to track compliance with residency rules (pg. 16; para 15 – pg. 17; para. 1). Again, the result of tracking compliance requires the transformation of data into intelligence. Coalition also discloses applying the sharing of data and intelligence in relation to border management as it relates to people and goods. (pg. 22; para. 11). Lastly, Coalition discloses a US based command centre linked to federal national security personnel where daily contact with security and intelligence officials is maintained to monitor situations, develop appropriate responses, and adjust their plans accordingly. Coalition discloses the Expedited Passenger Processing System (EPPS) as part of a risk management solution (pg. 8; para. 3-4: it is clear that EPPS is an *information synthesis application*).

38. Coalition does not disclose a computer-based system for implementing application architecture.
39. Wong, however, discloses "software that enables end-to-end, business-to-business Web commerce...that automates...the various aspects of running a successful and profitable business." (C4; L7-12). "A Web-enabled, client/server relational database management system" includes "code modules pertaining to each of the different domains". (C12; L55-64: i.e., processor (inherent in the server), database, and encoding instructions).
40. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included computer-based application architecture, as disclosed by Wong, in the system of Coalition for the motivation of integrating processes (including services) that result in a streamlined operation with data available in real-time. (Wong; C4; L18-24). By combining Wong's business process integration system with the various aspects of border management performed by the governments of Canada and the US, the process of providing the clearance

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across borders would be streamlined, more efficient and therefore aid in permitting “governments to focus their attention more effectively on illegal and irregular movements of goods and people.” (Coalition; pg. 7; para. 12).

41. Coalition does not disclose *a risk scoring and analytics application that applies neural networks and rules-based algorithms*.
42. Bian discloses using a neural network and algorithm to detect patterns of data that are characteristic of the outcome one is trying to predict. (P[0029]). A risk score is calculated.
43. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included using neural networks and rules-based algorithms, as disclosed by Bian, in the system of Coalition for the motivation of using a screening tool, such as a score, to assist in prioritizing investigation needs. (Bian; P[0038]). Coalition is directed toward identifying and communicating high risks in order to effectively use border resources. It is obvious to use data analysis tools, such as neural networks, algorithms and scoring, to prioritize the need to further investigate a movement.
44. **Claim 14:** Coalition discloses smart transportation networks for electronic reporting, shipment tracking and screening of containers (pg. 5; para. 1: cargo targeting and processing); imports/exports and entry/exit processing (pg. 25; para.1); centralized applications processing (pg. 15; para. 5: forms submission and case management); law enforcement (pg. 16; para.4); investigations (pg. 16; para. 7); passenger targeting (pg. 17; para. 5); revenue collection (pg. 15; para.12) and background checks (pg. 18; para.7).
45. **Claim 16:** Coalition discloses centralized application processing which includes assessment of the applicant's qualifications and authentication of supporting documents. These inherently involve activity and information recording and workflow management. Anybody making a false declaration is forcefully prosecuted (pg. 16; para. 10), therefore, an alert must be triggered in order to proceed with prosecution. A single data clearinghouse circulates passenger manifest data to appropriate departments in accordance with legal requirements. (pg. 17; para. 6: this also provides an alert.).

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46. **Claim 19:** Coalition discloses the internet and electronic data interchange (pg. 7; para. 5 and 7), a customer center (pg. 15; para. 5: visa offices) and mobile access (pg. 23; para.1: smart transportation networks for in-transit (i.e., mobile) reporting). Coalition does not disclose kiosks or call centers, but it would be obvious to expand the system of Coalition to include kiosks as kiosks are an old and well known form of customer interface and would provide convenient visa application access in the visa offices abroad. Coalition discloses providing "telephone reporting systems" (pg. 38; bullet 3 under "Specific Initiatives for Immediate Action") therefore, it is obvious to expand the system of Coalition to include call centers in order to both process application requests, assist customers during the application process and provide an alternative reporting mechanism.
47. **Claims 20 and 22:** Coalition discloses providing access points (the Internet – pg. 7; para. 5) and tools (NEXUS, EPPS, CSA, IBIS and NCAP – pg. 8; para. 1-5) for sharing data. Coalition does not disclose management/administration tool set or a client relationship tool set.
48. Wong, however, discloses that business processes (i.e., management/administration tool set) include purchasing (i.e., procurement), financial performance (i.e., finance and budgets) and personnel (i.e., human resources) (C5; L56-63) and customer service (C2; L17-18).
49. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included management and customer service tools, as disclosed by Wong in the system disclosed by Coalition, for the motivation of providing a method of providing the support related processes that are a necessary part of most businesses.
50. **Claim 21:** Coalition discloses *a collaboration tool*; (pg. 3; para. 2: data sharing and pg. 16; para. 4: links between passport office and various agencies to determine passport issuance); *a reporting and data mining tool*; (pg. 18; para. 7: background checking); *an integrated document management tool*; (pg. 8; para. 9: "NEXUS allows the applicant to make one application that is shared and approved by both governments"); *a data warehouse tool*; (pg. 4; para. 7: "computerized database to screen visa applicants"); *a security maintenance tool*; ("NEXUS is a

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security system that ensures identification of low-risk individuals"); *and an external interfaces tool* (pg. 7; para. 5; the Internet).

51. Claim 23: Coalition discloses border management including *an immigrants, travelers and trade capability for managing the entry and exit of people and cargo* (pg. 3; bullet 2); *a requests and applications capability for processing documents associated with immigrants, travelers, and trade* (pg. 3; bullet 2 and pg. 15; para. 5); *a detection and enforcement capability for patrolling and monitoring passengers and trade* (pg. 7; para. 3, 8 and 12; pg. 8; para. 2 and 3); *an investigation and intelligence capability for identifying and investigating unusual activity and trends associated with the entry and exit of people and trade* (pg. 7; para. 12); *and one or more supporting elements for storing collecting and storing information collected and intelligence developed with the border management solution* (pg. 11; para. 12-13: sharing intelligence inherently requires it to be collected and stored.).

52. Coalition discloses border management including *customer channels for allowing a customer to interact with border management employees, processes, or systems of the border management solution* (pg. 9; para. 9: electronic reporting for companies (i.e., customers)); *view of the customer providing a knowledge base of customer information* (pg. 15; para. 4-5); *a border management knowledge element interconnected with the customer channels and providing access by border management personnel to the information and intelligence maintained within the border management solution* (pg. 11; para. 12-13: the system for sharing customs data, information and intelligence would inherently include a *border management database*); *and a border enforcement intelligence element and external data sources for transforming data and information collected about a customer into enforcement intelligence* (pg. 16; para. 4, 7 and 10: passport information is shared among pertinent agencies through links to the various agencies, (thus providing intelligence tools, an engine and database), investigations are conducted and violators are prosecuted). Coalition further discloses centralizing visa applications processing in order to improve risk management. (pg. 15; para. 5) such that an improved, effective immigration system will facilitate the entry of low-risk travelers and concentrate security efforts on unknowns

and high risks. (pg. 15; para. 1). It is obvious that in order to achieve the goal of concentrating security resources on high risks, that data is transformed into intelligence. Coalition further cites passport security where information is shared to ensure that passports are not issued to people who are not entitled to hold one (pg. 16; para. 4), that anybody making a false declaration is prosecuted (pg. 16; para. 10: the declaration data is transform into intel in order to prosecute) and the need for information sharing using a database that contains information from all of Canada's immigration, law enforcement, security agencies, international policing agencies, and records of entries and exits in order to track compliance with residency rules (pg. 16; para 15 – pg. 17; para. 1). Again, the result of tracking compliance requires the transformation of data into intelligence. Coalition also discloses applying the sharing of data and intelligence in relation to border management as it relates to people and goods. (pg. 22; para. 11). Lastly, Coalition discloses a US based command centre linked to federal national security personnel where daily contact with security and intelligence officials is maintained to monitor situations, develop appropriate responses, and adjust their plans accordingly. Coalition discloses the Expedited Passenger Processing System (EPPS) as part of a risk management solution (pg. 8; para. 3-4: it is clear that EPPS is an *information synthesis application*).

53. Coalition does not disclose a *quadrant with associated business processes* or the integrated concepts that produce a single knowledge base or interconnectivity or selective access.
54. Wong, however, discloses “software that enables end-to-end, business-to-business Web commerce...that automates...the various aspects of running a successful and profitable business.” (C4; L7-12). “A Web-enabled, client/server relational database management system” includes “code modules pertaining to each of the different domains”. (C12; L55-64: i.e., processor (inherent in the server), database, and encoding instructions).
55. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included a business processing approach, as disclosed by Wong, in the system of Coalition for the motivation of integrating processes (including services) that result in a streamlined operation with data available in real-time. (Wong; C4; L18-24). By combining

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Wong's business process integration system with the various aspects of border management performed by the governments of Canada and the US, the process of providing the clearance across borders would be streamlined, more efficient and therefore aid in permitting "governments to focus their attention more effectively on illegal and irregular movements of goods and people." (Coalition; pg. 7; para. 12).

56. Coalition does not disclose *a risk scoring and analytics application that applies neural networks and rules-based algorithms*.
57. Bian discloses using a neural network and algorithm to detect patterns of data that are characteristic of the outcome one is trying to predict. (P[0029]). A risk score is calculated.
58. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included using neural networks and rules-based algorithms, as disclosed by Bian, in the system of Coalition for the motivation of using a screening tool, such as a score, to assist in prioritizing investigation needs. (Bian; P[0038]). Coalition is directed toward identifying and communicating high risks in order to effectively use border resources. It is obvious to use data analysis tools, such as neural networks, algorithms and scoring, to prioritize the need to further investigate a movement.
59. **Claim 25:** Coalition discloses the internet and electronic data interchange (i.e., portals) (pg. 7; para. 5 and 7), and Customs inspectors (port service representative) (pg. 6; para.8). Coalition does not disclose kiosks or call centers, but it would be obvious to expand the system of Coalition to include kiosks as kiosks are an old and well known form of customer interface and would provide convenient visa application access in the visa offices abroad. Coalition discloses providing "telephone reporting systems" (pg. 38; bullet 3 under "Specific Initiatives for Immediate Action") therefore, it is obvious to expand the system of Coalition to include call centers in order to both process application requests, assist customers during the application process and provide an alternative reporting mechanism.
60. **Claims 26-28:** Coalition discloses border management including *customer channels for allowing a customer to interact with border management employees, processes, or systems of the border*

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management solution (pg. 9; para. 9: electronic reporting for companies (i.e., customers)); *view of the customer providing a knowledge base of customer information* (pg. 15; para. 4-5); *a border management knowledge element interconnected with the customer channels and providing access by border management personnel to the information and intelligence maintained within the border management solution* (pg. 11; para. 12-13: the system for sharing customs data, information and intelligence would inherently include a *border management database*); *and a border enforcement intelligence element and external data sources for transforming data and information collected about a customer into enforcement intelligence* (pg. 16; para. 4, 7 and 10: passport information is shared among pertinent agencies through links to the various agencies, (thus providing intelligence tools, an engine and database), investigations are conducted and violators are prosecuted).

Response to Arguments

61. Applicant's arguments filed November 12, 2008 have been fully considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabrielle McCormick whose telephone number is (571)270-1828. The examiner can normally be reached on Monday - Thursday (5:30 - 4:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on 571-272-6812. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/G. M./
Examiner, Art Unit 3629

/John G. Weiss/
Supervisory Patent Examiner, Art Unit 3629